

## WHAT IS CLAIMED IS:

1. A method of cutting CSP substrates comprising the steps of:  
mounting plural CSP substrates on a single frame without  
overlapping them one upon the other, each CSP substrate having CSPs  
5 formed on plural rectangular regions thereof sectioned by the  
cutting streets arranged in a form of a lattice;  
recognizing the mounting position of each of said CSP  
substrates on said frame and storing the mounting positions in a  
storage means;  
10 securing said frame mounting said plural CSP substrates onto  
a chuck;  
imaging the surface of each of said CSP substrates by a  
precision imaging means, recognizing the positions of said cutting  
streets of each of said CSP substrates on said frame secured onto  
15 said chuck by analyzing the obtained image, and storing the  
positions of said cutting streets in said storage means;  
positioning said chuck, to which said frame is secured,  
relatively to each other with respect to said precision imaging  
means based on the stored mounting position of each of said CSP  
20 substrates on said frame at the time of imaging the surface of each  
of said CSP substrates by said precision imaging means; and  
cutting each of said CSP substrates along said cutting streets  
by moving said chuck and a cutting means relatively to each other  
based on the stored position of said cutting streets of each of  
25 said CSP substrates.
2. A method of cutting CSP substrates according to claim 1,  
wherein said frame has an opening at a central portion thereof,  
a mounting tape extending across said opening is stuck onto the  
30 back surface of said frame, and said CSP substrates are each stuck  
onto said mounting tape so as to be positioned in said opening of  
said frame.
3. A method of cutting CSP substrates according to claim 2,  
35 wherein said mounting tape has plural mounting position

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indications for indicating the mounting position of each of said CSP substrates, and the mounting position of each of said CSP substrates on said frame is recognized by viewing by eyes said mounting position indications and is manually input to said storage means.

4. A method of cutting CSP substrates according to claim 2, wherein the whole surface of said frame that mounts plural pieces of said CSP substrates is imaged by a whole-surface imaging means, and the mounting position of each of said CSP substrates on said frame is recognized by analyzing the obtained image and is stored.

5. A method of cutting CSP substrates according to claim 1, wherein the number of said cutting streets and gaps among them in each of said CSP substrates are stored in said storage means, and said chuck and said cutting means are moved relatively to each other to cut each of said CSP substrates along said cutting streets based on the stored number of said cutting streets and the stored gaps among them in each of said CSP substrates.

20 6. A method of cutting CSP substrates according to claim 5, wherein the number of said cutting streets and the gaps among them in each of said CSP substrates are stored in said storage means by being manually input.

25 7. A method of cutting CSP substrates according to claim 1, wherein said frame and a pick-up means are positioned relatively to each other based on the stored positions of the cutting streets of said CSP substrates, and plural CSPs that have been cut are 30 individually picked up from said frame by said pick-up means.